GIS in LA County

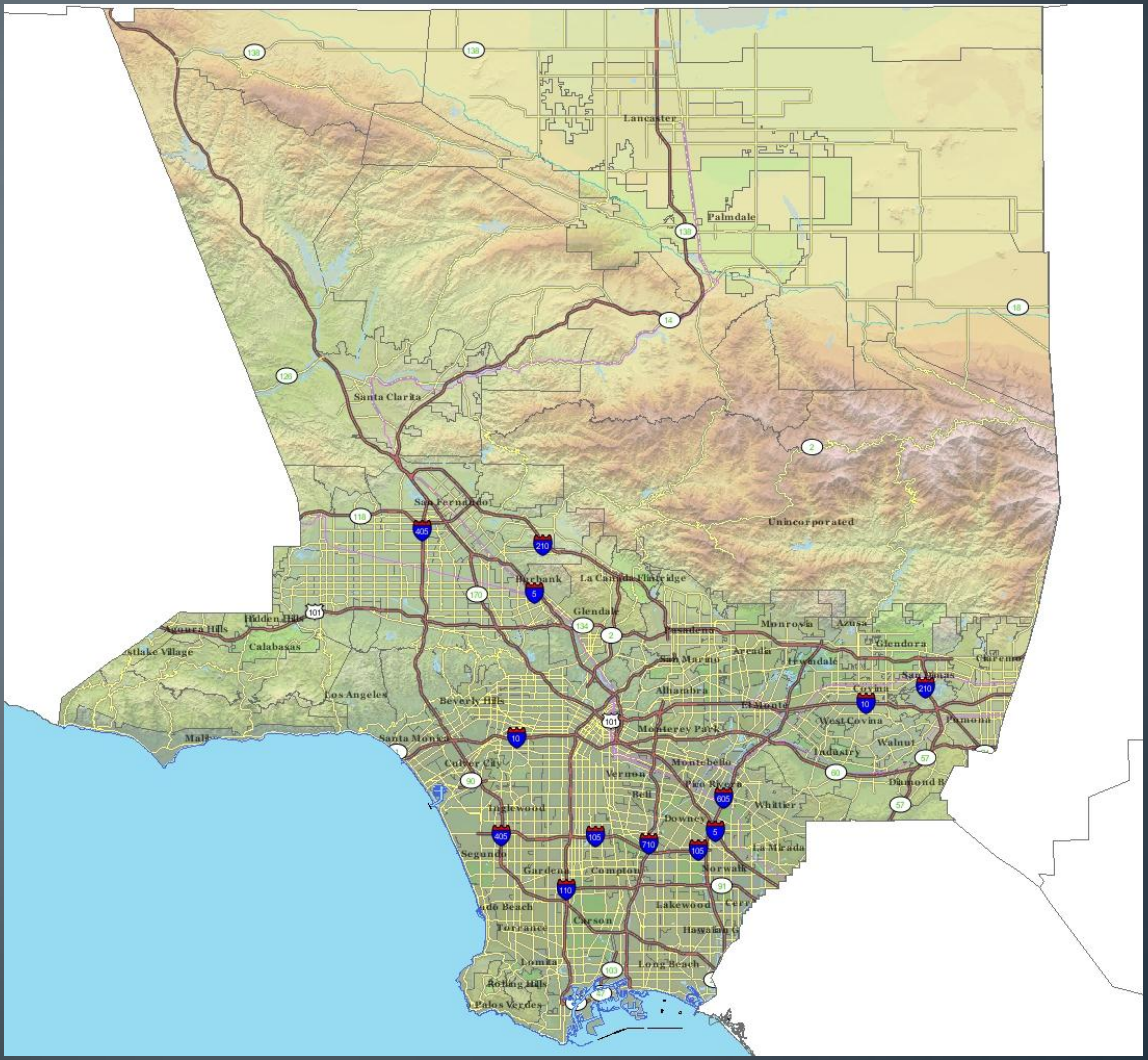
Where we are, where we are going

Mark Greninger
Geographic Information Officer
County of Los Angeles

My mission

Make Los Angeles County a recognized global leader in geospatial technologies.

LA County


Lancaster
Palmdale
Santa Clarita
San Fernando
Unincorporated
Burbank
La Canada Flintridge
Glendale
Hidden Hills
Calabasas
Los Angeles
Beverly Hills
Santa Monica
Pasadena
Monrovia
Azusa
Glendora
Arcadia
Alhambra
El Monte
West Covina
Pomona
Walnut
Industry
Monterey Park
Montebello
Culver City
Vernon
Bell
Pico Rivera
Whittier
Downey
Inglewood
La Mirada
Norwalk
Gardena
Compton
Lakewood
Carson
Torrance
Long Beach
Rolling Hills
Palos Verdes

LA County facts

- Geography
  - 4,084 square miles
  - 9.8 million residents
    - 1 of every 4 Californians
    - 1 of every 30 Americans
    - 8th largest state in the US
  - 88 cities
- Economy
  - 2.3 million parcels
  - GDP > $500 Billion
  - Property values = $988,727,426,917 ($988 billion)

LA County government

- 5 Supervisors
- Unincorporated Areas
  - Serves 1.5 million people
- Countywide Services
  - Mental Health
  - Welfare
  - Health Services and Public Health
  - Parks and Recreation
  - Many others
- 100,000 employees
- $23.3 billion budget

Making LA County a leader

- Why?
  - Drive investment, growth, and jobs in a fast-growing technology
  - Support business investment
  - Provide safer, healthier environment
- What will it take?
  - People
  - Data
  - Tools
  - Governance

People

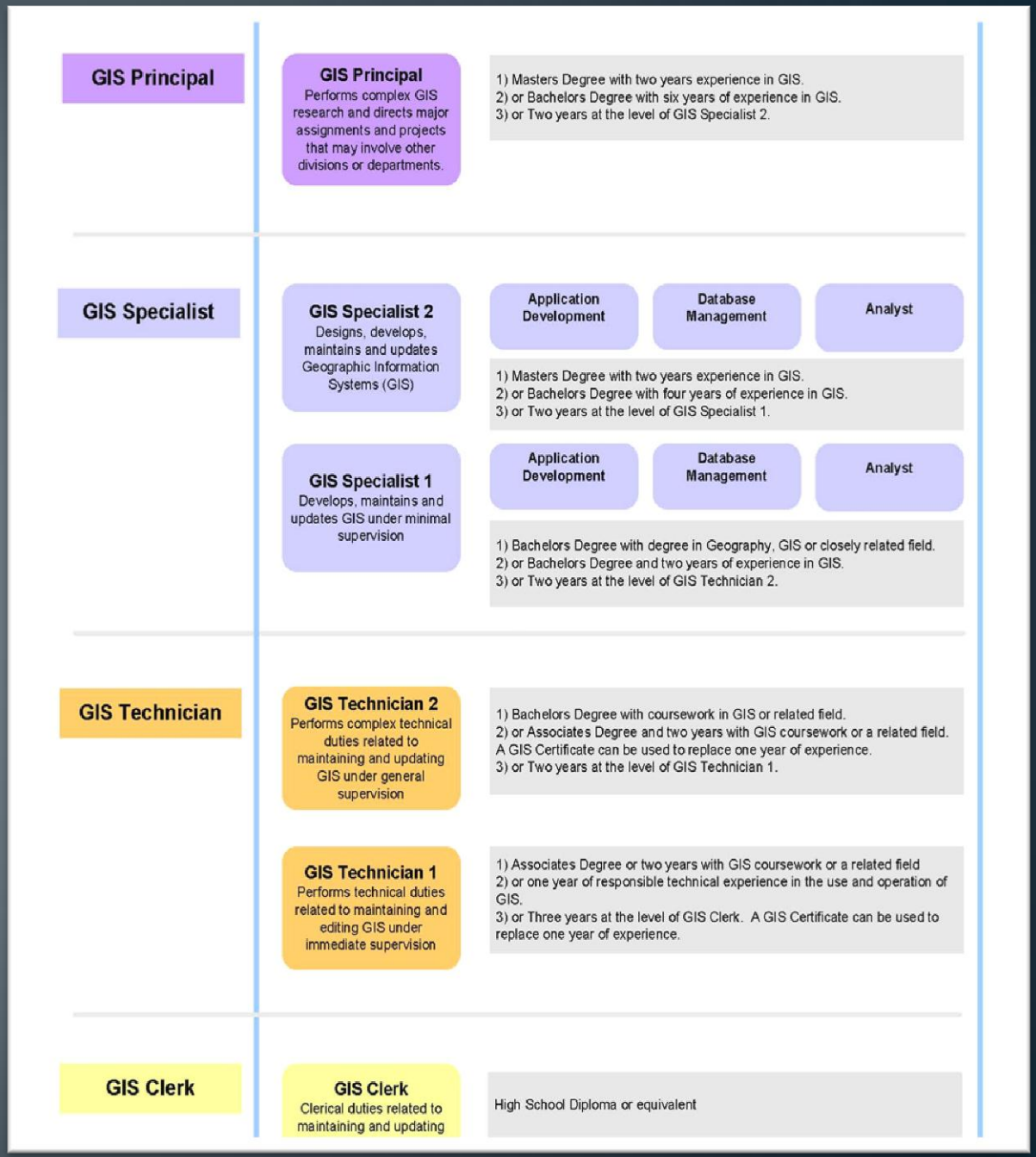
The heart of any system

GIS capabilities

- LA County supports the training of an advanced GIS workforce
- The best people make the best GIS!
- Provide a career path for GIS in the County of Los Angeles
  - Currently have over 200 staff doing GIS
  - 97 different classifications
  - Cannot recruit or retain staff
  - Need to build a career path
- Support internships/mentorships
  - C-BEEP

Proposed Classifications

Draft – for representation only



Provide real data

- Get students used to working with real data
  - Large
  - Dirty
  - Valuable
- Students should use countywide data where possible.
- Provide feedback to LA County on its data

Data

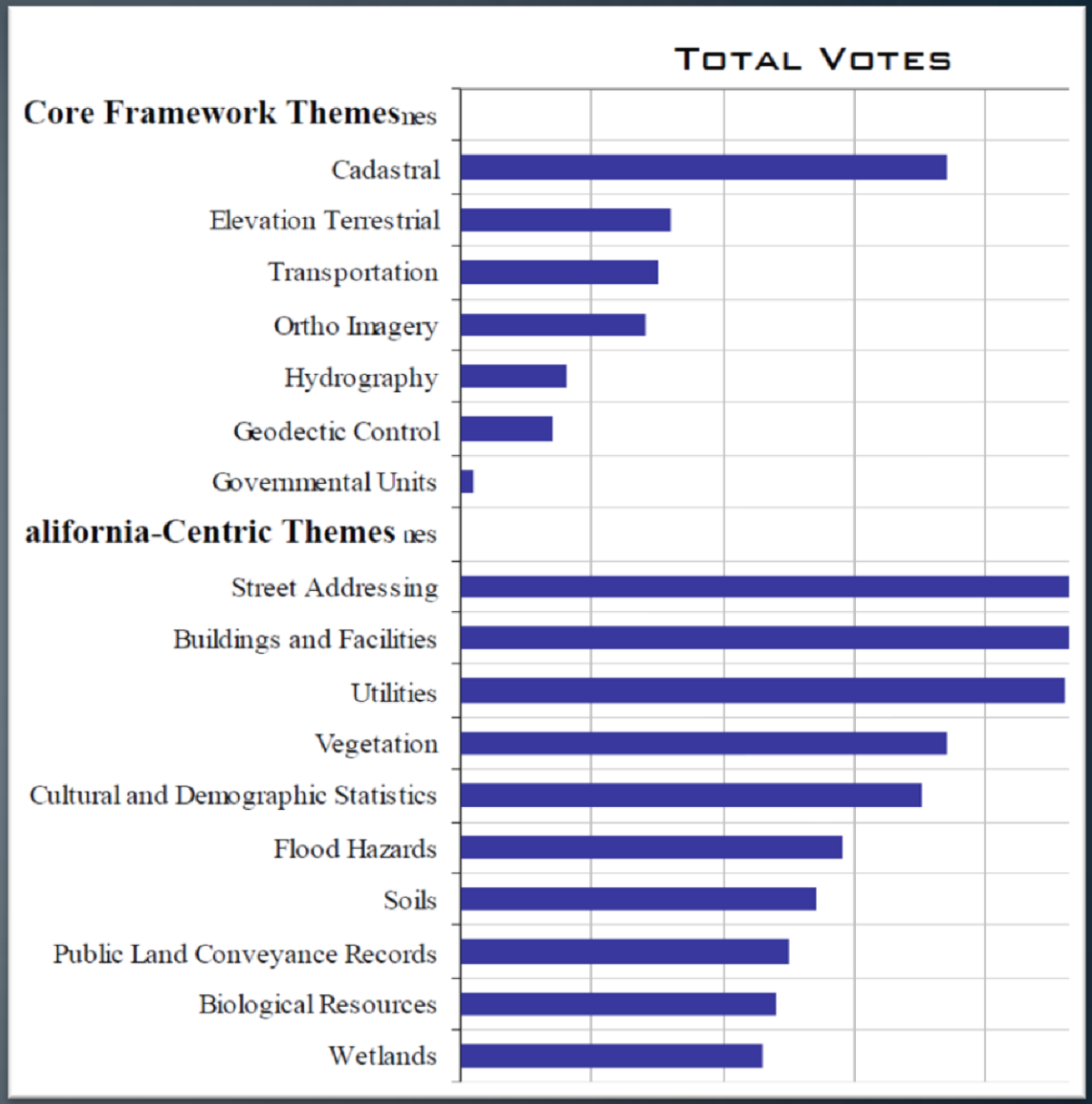
Building the LA County Spatial Data Infrastructure (SDI)

What is an SDI

- A framework of spatial data, metadata, users and tools that are interactively connected in order to use spatial data in an efficient and flexible way
- GIS requires a shared map!
  - An accurate, shared SDI is the foundation for accurate geospatial analysis

CA Geospatial Framework

http://cgia.org



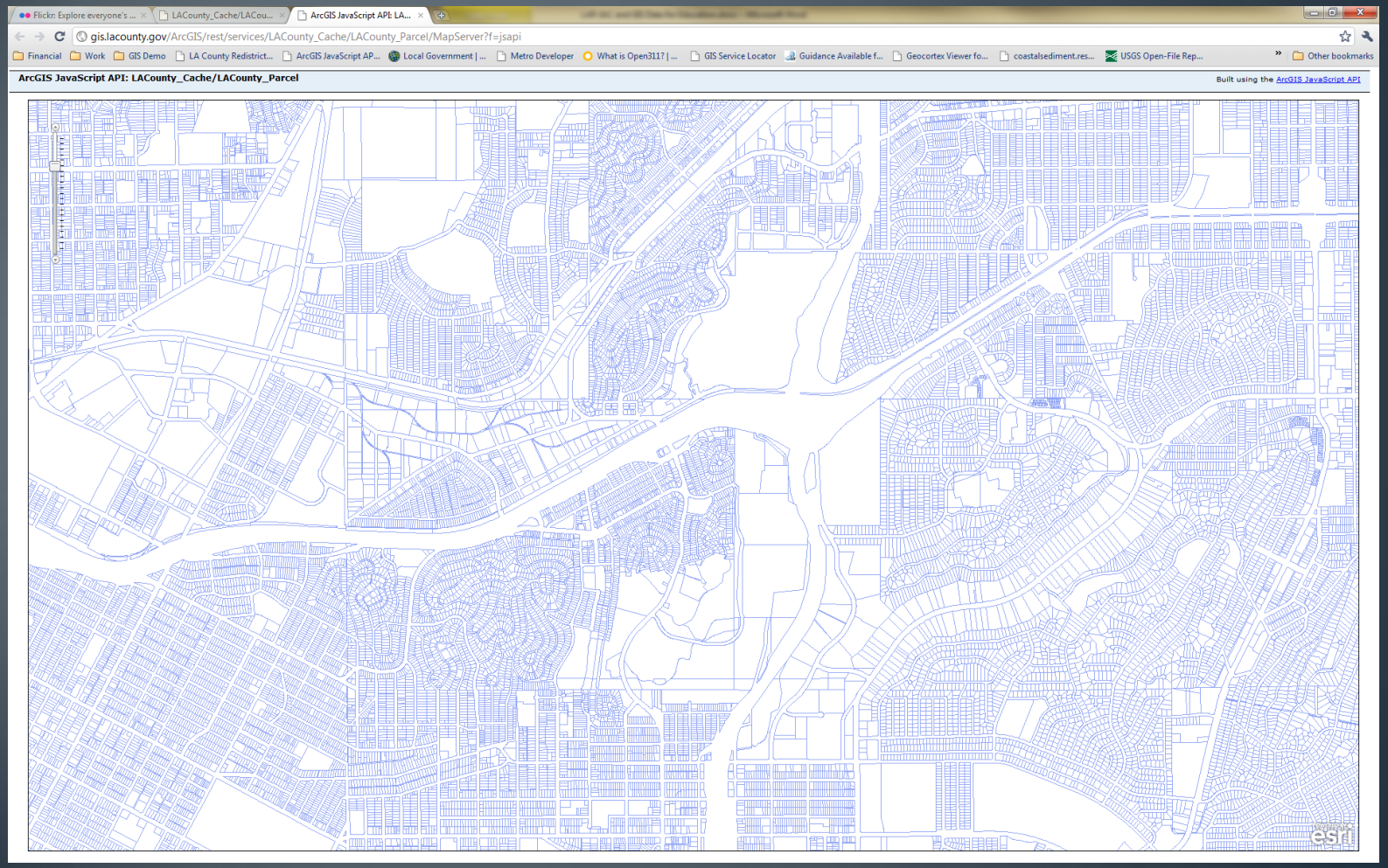
How do we get an SDI

- Buy it
- Or Share!
- Options:
  1. Data Sharing
  2. Cost Sharing
  3. Collaboration
  4. The best way ….

Option 1: Data Sharing

- LA County Assessor
  - Sells data at minimal cost
    - $5 for DVD of all Parcel boundaries
    - $329 for DVD of critical parcel attributes (the local roll)
  - http://assessor.lacounty.gov/extranet/Outsidesales/price.aspx

The Assessor's data

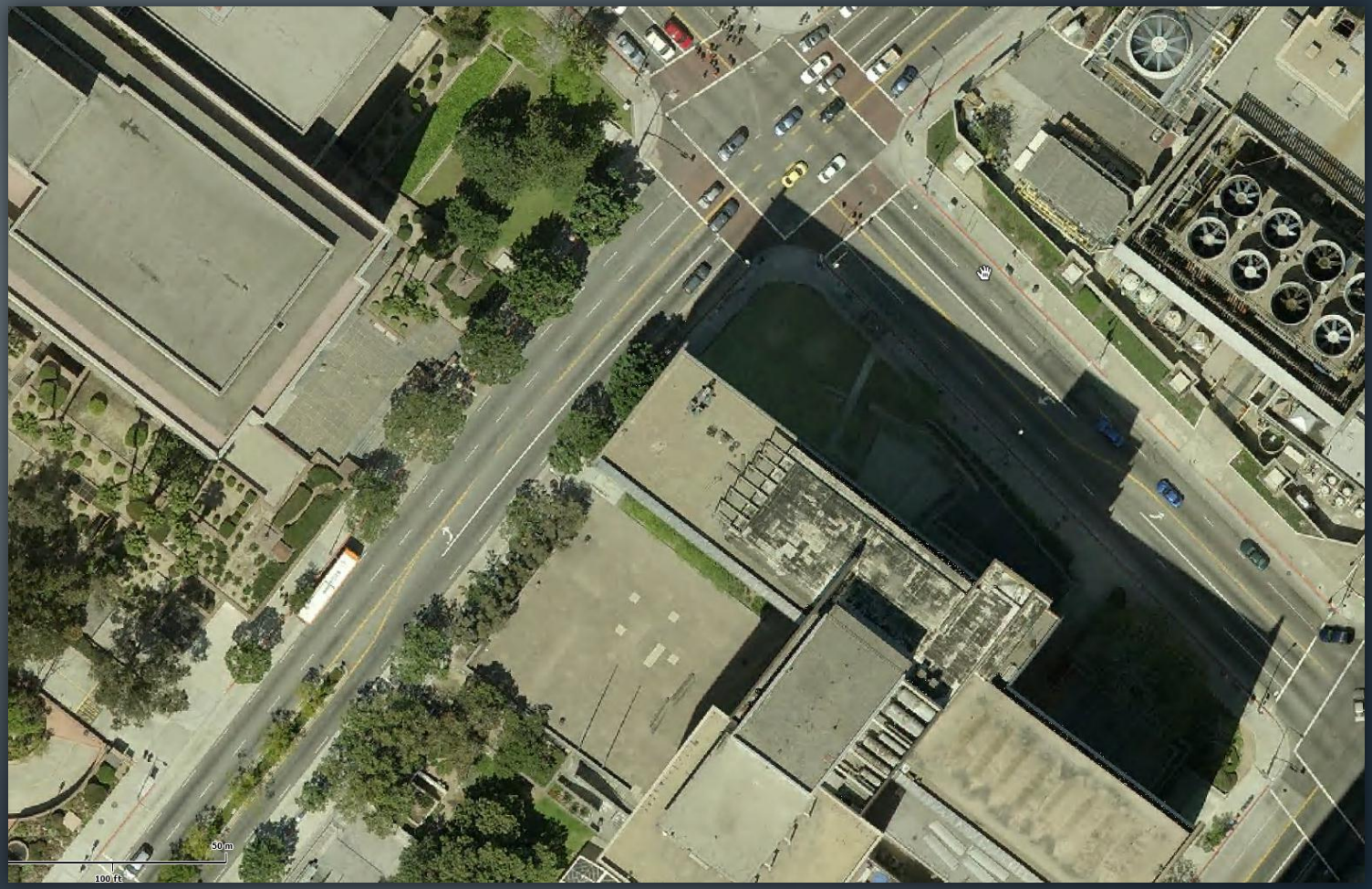


Option 2: Cost Sharing

- LAR-IAC (Los Angeles Region Imagery Acquisition Consortium)
  - http://planning.lacounty.gov/lariac
  - Consortium to acquire high-resolution aerial products
    - Orthophotography (Color and Infrared)
    - Oblique Imagery
    - Elevation Data (ground and tree-top)
    - Contours
    - Building outlines
  - Costs shared between consortium members
  - Special pricing for educational institutions
    - $5K for 2 year, $10K for 4 year, and $20K for PHD universities.
    - Will provide "GIS on a disk"

LAR-IAC Orthogonal Imagery

- Also known as “Satellite View”

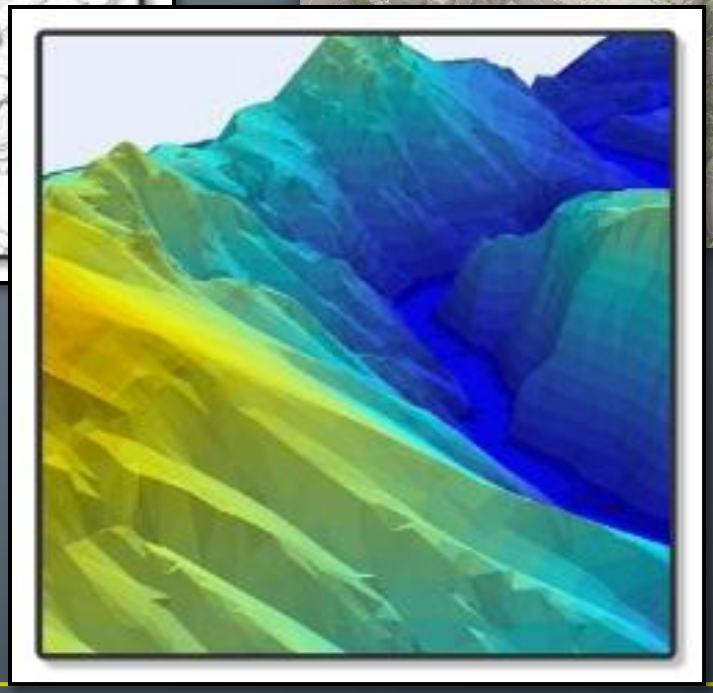


LAR-IAC Oblique Imagery

- Also known as “birds eye”

LAR-IAC Elevation Data

- Contours, buildings, surfaces

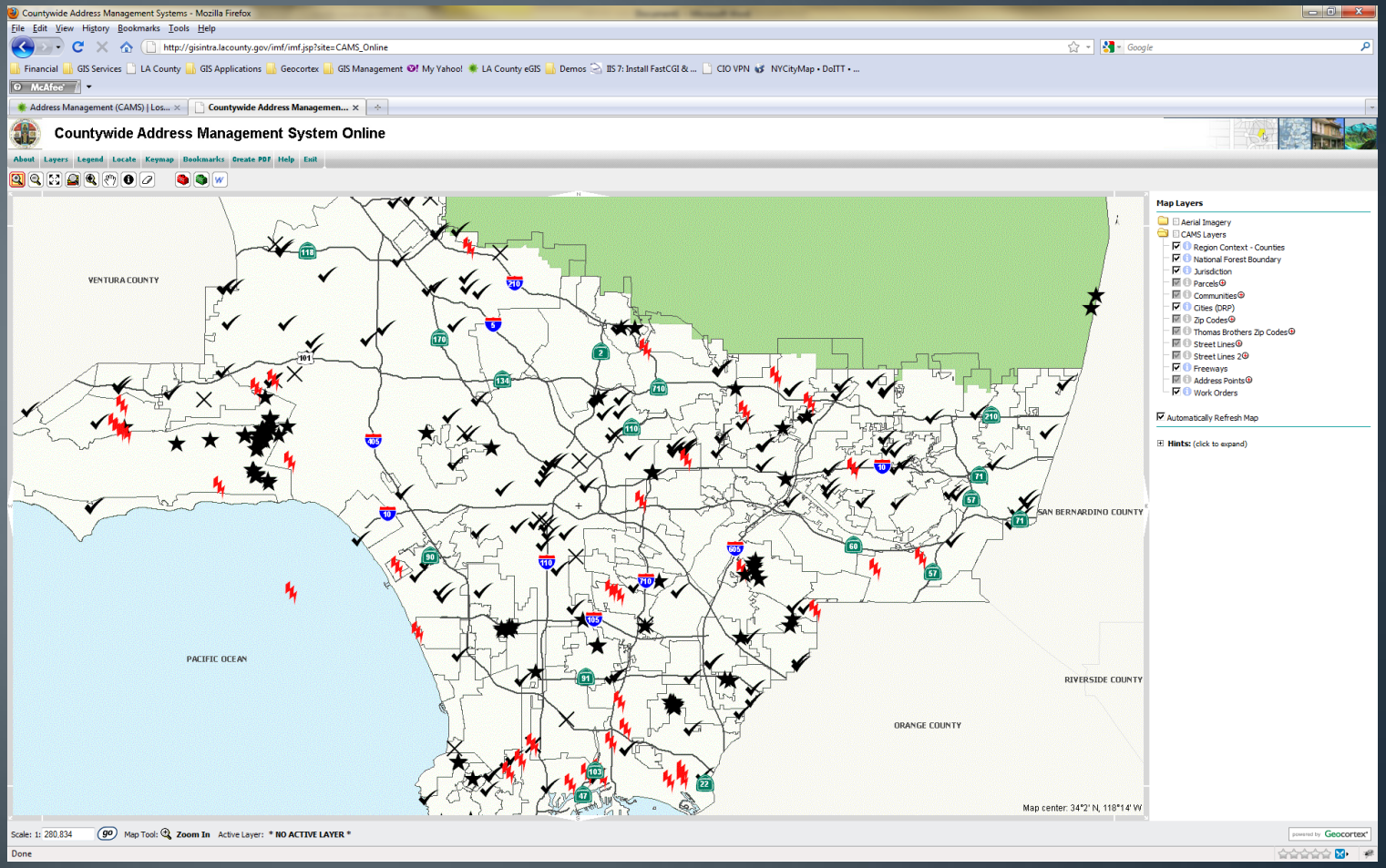


LAR-IAC Building Outlines

Option 3: Collaboration

- Countywide Address Management System (CAMS)
  - Collaborative approach to maintaining streets and addresses
  - Includes data, tools, and governance
  - Started as a collaboration between County departments
  - Cities are now updating data in the system
  - Leverages licensed data – moving to TIGER data
- Results
  - 99.96% geocoding rate
  - Spatially accurate streets
- http://egis3.lacounty.gov/eGIS/?page_id=8

CAMS Online

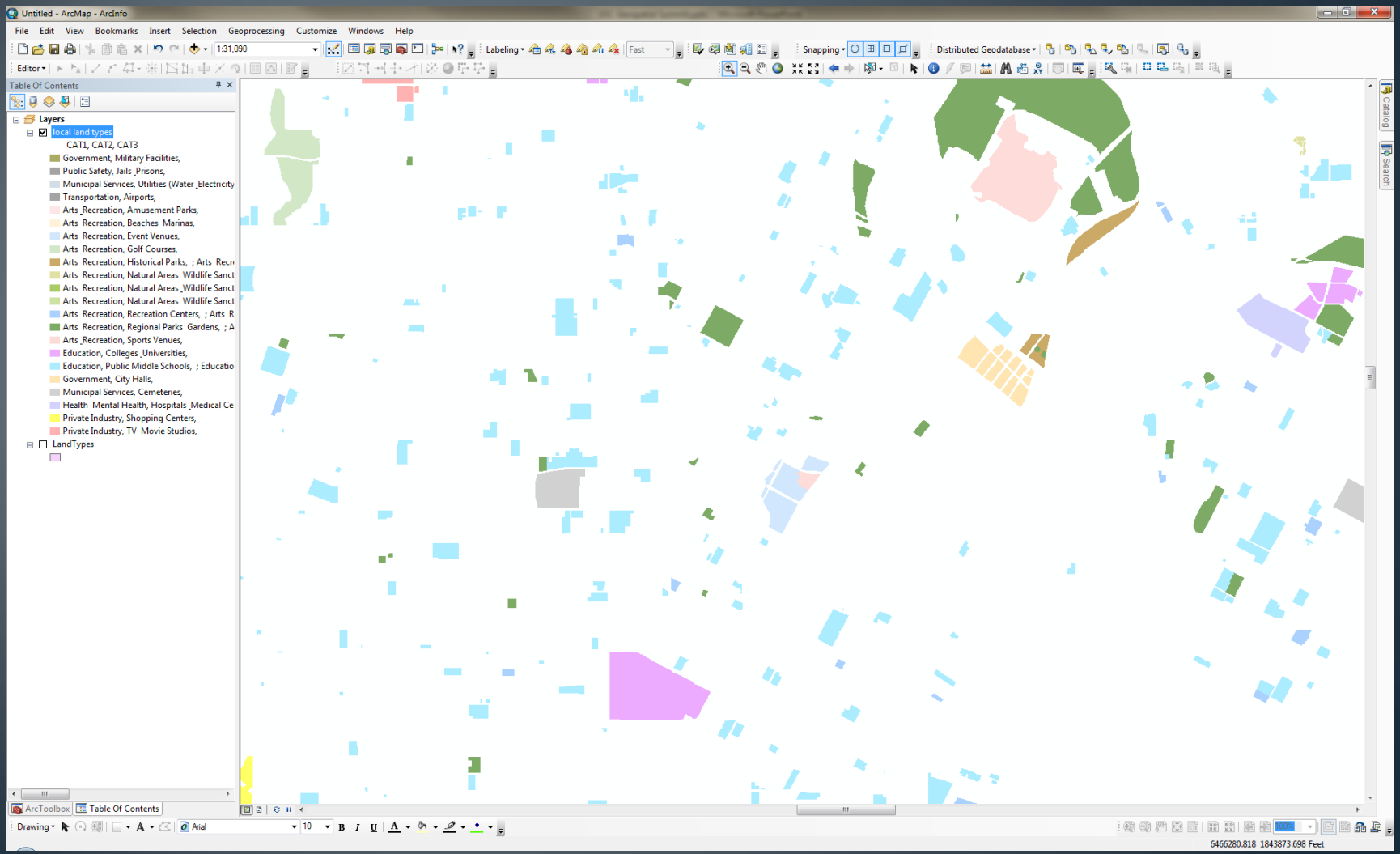

Countywide Address Management Systems - Mozilla Firefox
Countywide Address Management System Online
About
Layers
Legend
Locate
Keymap
Bookmarks
Create PDF
Help
Exit
VENTURA COUNTY
PACIFIC OCEAN
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY
ORANGE COUNTY
Map Layers
Aerial Imagery
CAMS Layers
Region Context - Counties
National Forest Boundary
Jurisdiction
Parcels
Communities
Cities (DRP)
Zip Codes
Thomas Brothers Zip Codes
Street Lines
Street Lines 2
Freeways
Address Points
Work Orders
Automatically Refresh Map
Hints: (click to expand)
Map center: 34°2' N, 118°14' W
Scale: 1: 280,834
Map Tool: Zoom In
Active Layer: * NO ACTIVE LAYER *
Done

Land Types

- Collaborative approach for updating areas of interest
- Cities and authoritative owners can update the County's data
- From 0 to 4,881 boundaries in 4 months

•Beaches •Golf Courses •Museums & Aquariums •Parks & Recreation Centers •Sports & Event Venus	•Colleges & Universities •Schools (Private, Charter, Public) •Hospitals (limited set) •Cemeteries	•TV & Movie Studios •Jails & Prisons •Airport Boundaries •Shopping Centers

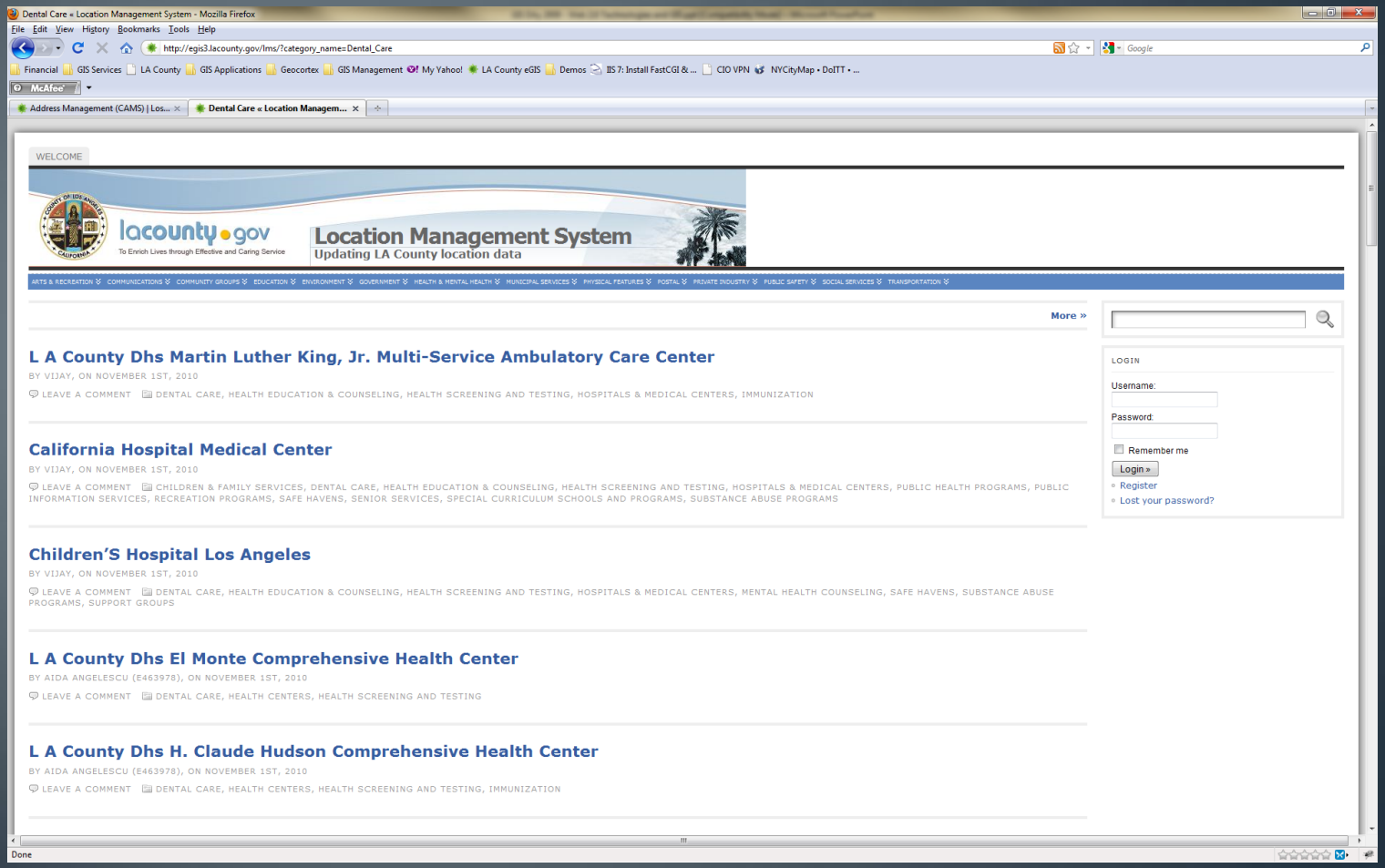
Land types data



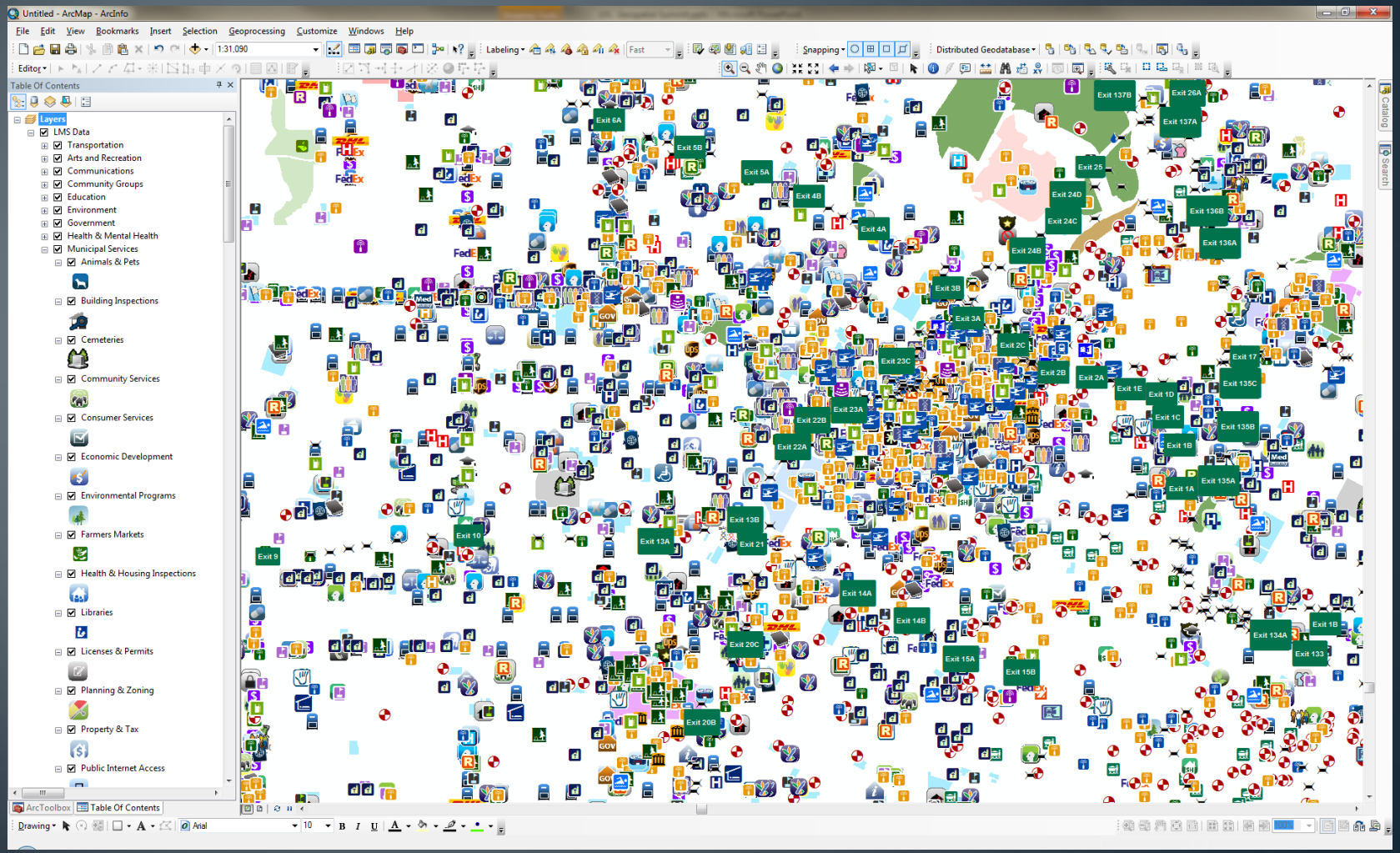
Location Management System

- Single source for points of interest
- Multi-user, multi-owner
- Fully web 2.0, crowd-sourced, subscription, etc.
- http://gis.lacounty.gov/lms
- 66,000 locations of interest covering 300+ categories of information

The LMS interface



The LMS map


Untitled - ArcMap - ArcInfo
File Edit View Bookmarks Insert Selection Geoprocessing Customize Windows Help
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Cemeteries
Community Services
Consumer Services
Economic Development
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Farmers Markets
Health & Housing Inspections
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Property & Tax
Public Internet Access
ArcToolbox
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Drawing

The way forward

Open data

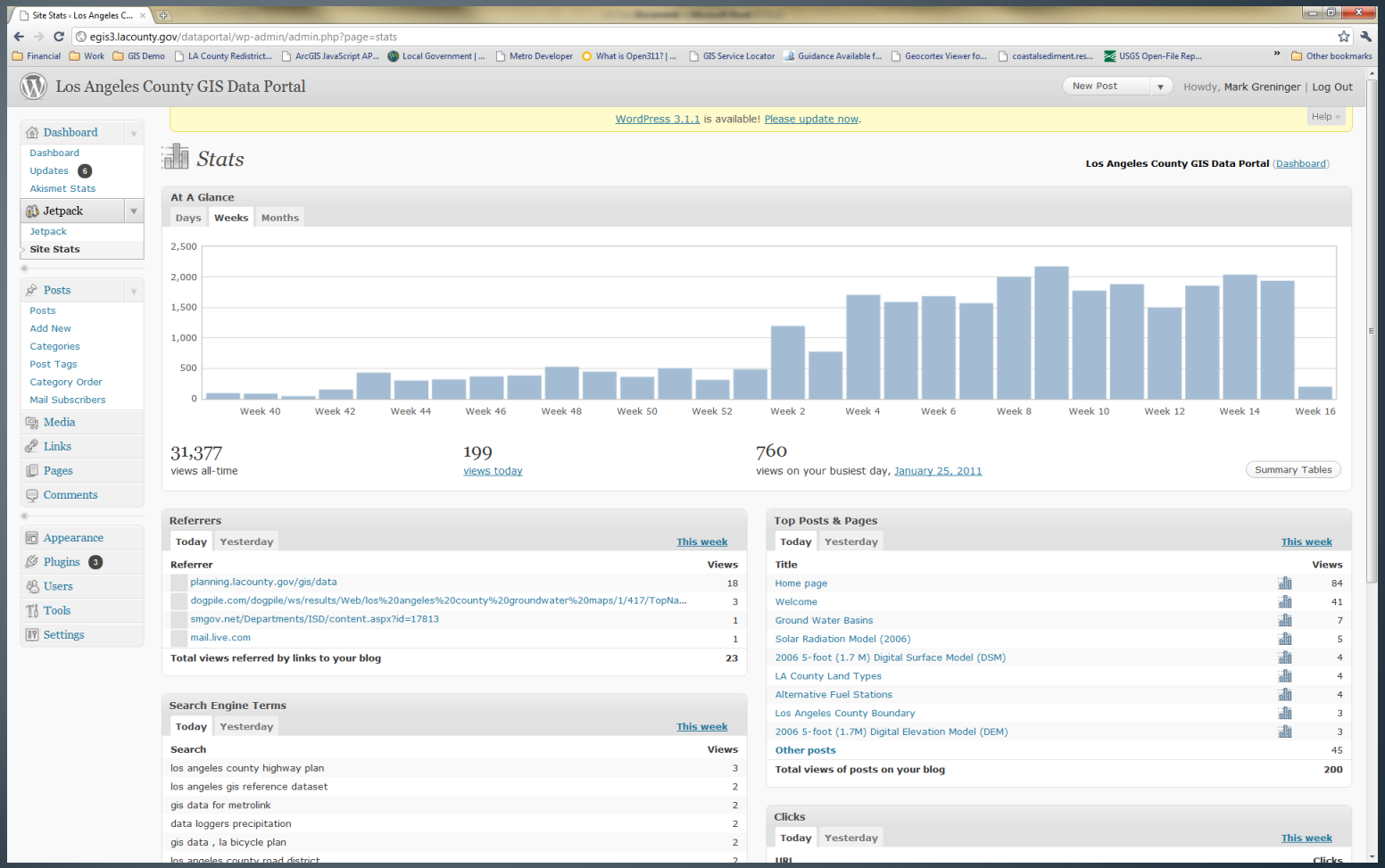
Open data

- Our goal is to make all of our data, where possible, open source.
- Shared data creates its own standards and community
- Let users do GIS, not create GIS data

The LA County GIS Data Portal

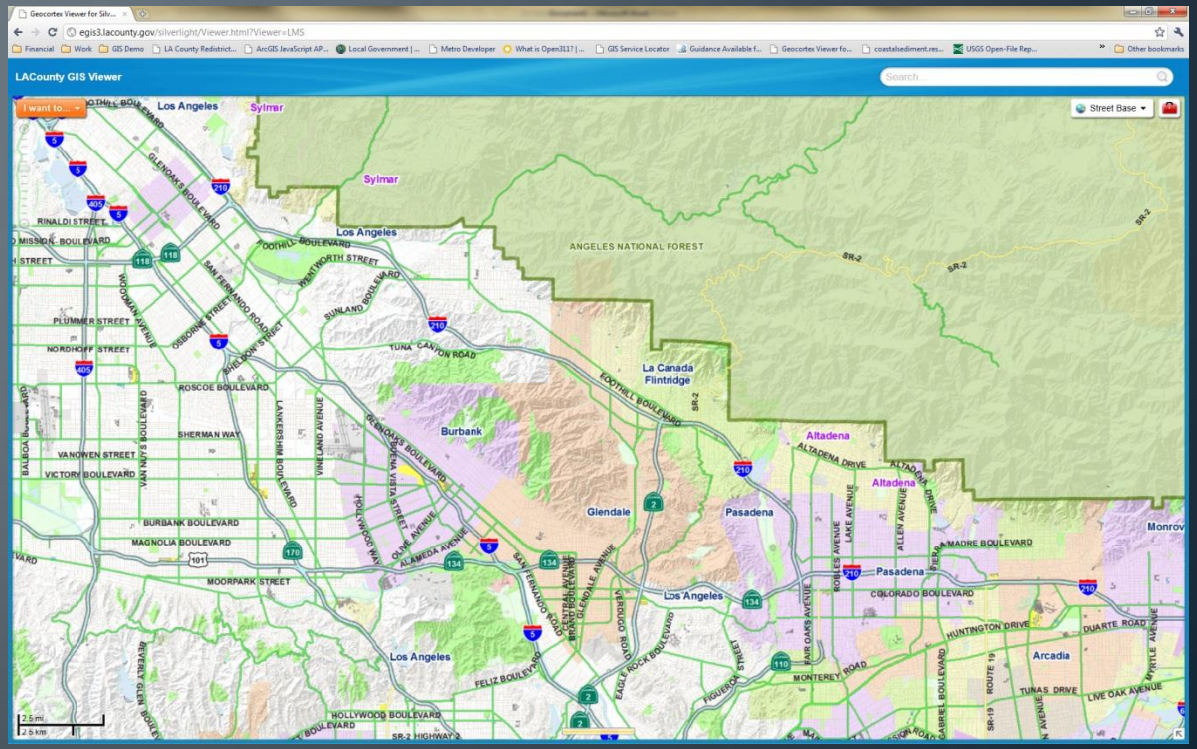
- http://gis.lacounty.gov/dataportal
- The place to get GIS Data for LA County
- Launched January 2011
- You can:
  - Search for GIS Data
  - Download GIS Data
  - Subscribe to GIS Data
  - Comment on GIS Data
  - Map the sources of GIS Data (future)
  - See data in the GIS data Viewer

Data Portal Statistics



GIS Data Viewer (alpha site)

- Place to visualize GIS data
- Provide simple GIS tools
- http://gis.lacounty.gov/gisviewer



To the future

GIS services

Services

- Provide GIS data as a service, not a file
- Utilize ESRI REST technologies
  - Build mashups with County-provided services
  - Collaborate with ESRI Community Map
  - Like Google Maps with advanced capabiltiies
- Types
  - Mapping
  - Geocoding
  - Analysis

Widgets

- Pieces of code
- Know where the data is and how to present it
- Rapid application development.

Governance

Keeping it together

Governance

- The formal way to communicate plans and ideas
- Bring GIS stakeholders together
- Develop our vision for the future together
- County and cities
  - Targeting a June meeting
- GIS 2020
- Develop a relationship with the State and Federal Government
  - State's GIO – Scott Gregory
  - USGS Liaisons – Drew Decker and Carol Ostergren

GIS Day

GIS Day 2011

- GIS Day is a great way to communicate GIS
- LA County's GIS Day
  - Our 3rd event
  - November 16th, 2011
  - Department of Public Works Headquarters
  - Please attend and present!
- Check: http://gis.lacounty.gov/egis

One last item

LA County Solar Map

- Version 2 launches this Friday
- http://solarmap.lacounty.gov
- Beta is available on http://egis3.lacounty.gov/solarmap

Thank you!

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